

WHAT IS CLAIMED IS:

1. A casing for a solid explosive munition comprising a casing wall for enclosing a munition, an inner surface of said casing wall including an optical reflecting layer that is highly reflective in the optical and infrared spectrum, said optical reflecting layer acting to inwardly reflect electromagnetic radiation generated by detonation of the munition.

2. The casing as set forth in claim 1, wherein said optical reflecting layer includes a liquid applied to said inner surface.

3. The casing as set forth in claim 1, wherein said optical reflecting layer includes a separate liner element.

4. The casing as set forth in claim 1, wherein said optical reflecting layer includes sheeting of at least one of metal, ceramic or plastic.

5. The casing as set forth in claim 4, wherein said optical reflecting layer includes sheeting of a reflecting metal having a low emissivity.

6. The casing as set forth in claim 5, wherein the reflecting metal is selected from the group consisting of aluminum, lead, steel, tungsten, nickel and gold.

7. The casing as set forth in claim 3, wherein said liner element includes sheeting of a reflecting metal having a low emissivity.

8. The casing as set forth in claim 7, wherein the reflecting metal is selected from the group consisting of aluminum, lead, steel, tungsten, nickel and gold.

9. The casing as set forth in claim 3, further comprising a cushioning layer between said liner element and said casing.

10. The casing as set forth in claim 9, wherein said cushioning layer is made of a polymer or an asphalt-like material.

11. The casing as set forth in claim 1, wherein said inner surface is lined with a shock-absorbing layer to which the optical reflecting layer is applied.

12. The casing as set forth in claim 1, wherein said optical reflecting layer includes a plurality of layers.

13. The casing as set forth in claim 1, wherein the casing is semi-spherical, having a reflecting end connected to a reflector-lined cylinder and an initiator positioned adjacent a blow-out plate located distally from said reflecting end.

14. A solid explosive munition device comprising a casing and a charge enclosed by said casing, an inner surface of said casing including an optical reflecting layer that is highly reflective in the optical and infrared spectrum, said optical reflecting layer acting to inwardly reflect electromagnetic radiation generated by detonation of said munition device.

15. The device as set forth in claim 14, wherein said optical reflecting layer includes a liquid applied to an inner wall surface of said casing.

16. The device as set forth in claim 14, wherein said optical reflecting layer includes a separate liner element.

17. The device as set forth in claim 16, wherein said optical reflecting layer includes sheeting of at least one of metal, ceramic or plastic.

18. The device as set forth in claim 15, wherein said optical reflecting layer includes sheeting of a reflecting metal having a low emissivity.

19. The casing as set forth in claim 18, wherein the reflecting metal is selected from the group consisting of aluminum, lead, steel, tungsten, nickel and gold.

20. The device as set forth in claim 18, wherein an equivalent mass ratio of said device increases with increased casing mass relative to charge mass.

21. The device as set forth in claim 14, wherein an equivalent mass ratio of said device increases with increased casing mass relative to charge mass.

22. The device as set forth in claim 16, further comprising a cushioning layer between said liner element and said casing.

23. The casing as set forth in claim 14, wherein said optical reflecting layer includes a plurality of layers.

24. The casing as set forth in claim 14, wherein said optical reflecting layer is so constructed in shape to concentrate and project the radiation in a prescribed direction.

25. The casing as set forth in claim 24, further including a blow out plate to expedite projection of the radiation in the prescribed direction.